Why GRADUATE STUDIES in BIOMEDICAL & MOLECULAR SCIENCES?

Graduate students and their work are an important part of an ongoing research process that provides the scientific community with ways of understanding fundamental biomedical and molecular processes underlying normal cellular and microbial processes, organ system function, and human disease. The faculty, staff and trainees in Biomedical and Molecular Sciences are engaged in world-class research and teaching, attracting and mentoring the best students, the finest educators, dedicated support staff, and internationally-competitive researchers. We value curiosity, creativity, commitment, and collegiality.

Why QUEEN’S?

The Biomedical and Molecular Sciences Department at Queen’s provides a cross-disciplinary environment and delivers the programs in a collaborative and integrated manner. This interdisciplinary approach gives candidates access to over 80 faculty members engaged in a broad spectrum of biomedical research, using techniques to address questions concerning single molecules, cellular/microbial function, organ-systems, and whole-animal biology.

“The Department provides an environment that encourages collaboration with numerous researchers with a wide variety of interests and expertise.”

– Nikki Philbrook, PhD

Program STRUCTURE

MSc (2 years, full time): Course work, seminars, research project and thesis with oral defense.

Fields of SPECIALIZATION

- **Biochemistry and Cell Biology**: focuses on understanding the fundamental processes of life and human disease.
- **Experimental Medicine**: employs interdisciplinary methods to explore the processes responsible for both the normal and diseased state.
- **Microbes, Immunity, and Inflammation**: focuses on questions at the cellular and molecular level involving viral and bacterial organisms and the immune system.
- **Reproduction and Developmental Sciences**: spans clinical and basic science, with a focus on fertilization and embryo implantation, perinatal health, women’s health, and more.
- **Therapeutics, Drug Development, and Human Toxicology**: focuses on the effects, both beneficial and deleterious, of chemicals including drugs and environmental contaminants, on human health.

We encourage you to identify an area of research interest and contact a potential supervisor before applying.

Visit the Biomedical and Molecular Sciences website to read faculty profiles, and learn more about faculty members’ research areas and research groups. When you find a faculty member with similar research interests to yours, contact him/her and tell them about your interest in graduate work and related experience.

See the Biomedical and Molecular Sciences Graduate Student Handbook online for more detailed information about the program.
Biomedical & Molecular Sciences MSc MAP *

Visit careers.queensu.ca/gradmaps for the online version with links!

GETTING STARTED

ACHIEVE YOUR ACADEMIC GOALS

- Start with key priorities like developing your relationship with your supervisor, forming your committee, and doing your coursework.
- Find your way through the academic process with help from departmental and Expanding Horizons professional development workshops, the department Grad Chair and the SGS Habitat.
- Complete WHMIS hazard training.

MAXIMIZE RESEARCH IMPACT

- Start to think about the audiences for your research.
- If you will be continuing graduate studies, apply for funding from sources such as CIHR, NSERC, OGS, the Heart & Stroke Foundation, CBICF, the Department of Defence and the American Cancer Society.
- Complete your coursework; begin to research and write your thesis.
- If working with animals, students must take an introduction course to animal care (QACS 799).
- Take the Lab Safety Training course and AODA training.
- Complete the Fundamentals of Academic Research course (BMED 860).
- Attend the departmental seminar program (BMED 897).

BUILD SKILLS AND EXPERIENCE

- Consider positions in student services, the SGS, or media outlets like the Queen’s Journal, CPRI, Studio Q and the SGS Blog. Look in the AMS Clubs Directory for more ideas.
- Serve on departmental, faculty or university committees. Talk to the graduate representatives for tips on getting involved.
- Consider volunteering with different community organizations, such as Kingston General Hospital.
- Participate in your graduate and professional community through activities such as graduate student outreach programs, organizing conferences, and research groups.
- For help with teaching, get support from the Centre for Teaching and Learning. Enroll in SGS901 or the PUTL certificate for more professional development in teaching and learning.

ENGAGE WITH YOUR COMMUNITY

- Explore how you can connect with your community through experiential opportunities on- and off-campus.
- Consider volunteering with different community organizations, such as Kingston General Hospital.
- Consider collaborating with different community organizations, such as Kingston General Hospital.
- Participate in your graduate and professional community through activities such as graduate student outreach programs, organizing conferences, and research groups.
- Prepare for work or studies in a multi-cultural environment by taking the OUC and Four Directions Aboriginal Student Centre's Training Certificate.
- If you are an international student interested in staying in Canada, consider speaking with an International Student Advisor.

LAUNCH YOUR CAREER

- Finding a career that fits starts with knowing yourself. Get help by taking a Career Services career planning workshop or meeting with a career counsellor. Check out books like So What Are You Going to Do With That? or Planning a Scientific Career in Industry from the Career Resource Area for advice on various career options.
- Start reading publications like University Affairs and the Chronicle of Higher Education. Browse non-academic labour market websites. Stay on the lookout for special events like Graduate Student Career Forum to explore your career pathways.
- Check admission test deadlines if needed for further studies.

INTERMEDIATE STAGE

- Complete your coursework; begin to research and write your thesis.
- If working with animals, students must take an introduction course to animal care (QACS 799).
- Take the Lab Safety Training course and AODA training.
- Complete the Fundamentals of Academic Research course (BMED 860).
- Attend the departmental seminar program (BMED 897).
- Attend or present at a graduate conference. Ask your supervisor for recommendations.
- Consider participating in the 3 Minute Thesis (3MT) competition.
- Expand your research audience through social media such as Twitter or a blog.
- Set up a meeting with the School of Graduate Studies for a Grad Chat to discuss your research interests.

WRAPPING UP

- Present your research to Biomedical and Molecular Sciences graduate students and faculty.
- Complete and defend your Master's research thesis.
- Practice articulating the skills you have been developing in settings outside the university, such as casual conversation, networking, and interviews. Get help from a Career Services workshop.
- Check out opportunities for extra training through CTL, Expanding Horizons, Mitacs, or other sources to boost your skills.
- Investigate internships from Mitacs and other sources.
- Attend the departmental seminar program (BMED 897).
- Do some targeted networking with people working in careers of interest, through Queen'sConnects on LinkedIn, the Queen's Alumni Association, professional associations, and at conferences. Get help from a Career Services workshop.
- Consider joining one of the many professional associations related to biomedical & molecular sciences, such as the Canadian Society for Molecular Biosciences (CSMB).
- Attend a conference in your field, such as the International Conference on Bioinformatics and Biomedical Science (ICBB).
Application FAQs

What do I need to know to APPLY?

ACADEMIC REQUIREMENTS
- Recognized honours degree with a background in Biology or Health Sciences or equivalent professional degrees (eg. BN.Sc., B.Sc., P.T.).
- Grade requirements: B+ (77-79.9%) in the second, third and fourth years of an Honours Bachelor’s degree.

ADDITIONAL REQUIREMENTS
- If English is not a native language, prospective students must meet the English language proficiency requirements in writing, speaking, reading, and listening. The School of Graduate Studies requires the following minimum scores: TOEFL (paper-based): 550, (2) TOEFL iBT: Writing (24/30); Speaking (22/30); Reading (22/30); Listening (20/30), for a total of 88/120 (applicants must have the minimum score in each test as well as the minimum overall score), or (3) IELTS: 7.0 (academic module overall band score), or (4) PTE Academics: 65.

KEY DATES & DEADLINES
- Application due: March 1st (To be considered for internal awards). Flexible deadline.
- Notification of acceptance: Pending confirmation of a supervisor.

Before you start your application, please review the Graduate studies application process.

What about FUNDING?

Master’s students in Biomedical and Molecular Sciences are offered a minimum funding of $19,000 per year. As part of the minimum funding package, you may serve as a Teaching Assistant for at least one term per year.

Apply for external funding from OGS, CIHR/NSERC and other sources. Queen’s will automatically issue a $5,000 top-up to Master’s winners of federal government tri-council awards. See the School of Graduate Studies’ information on awards and scholarships for more.